

Remarks

Section I: Response to Applicant's Amendment

Information Disclosure Statement

- 4. Applicants are thanked for addressing this issue; however, applicants have not withdrawn prior art for reasons stated in the previous office action. Thus objection stands.**

In an IDS filed on 3/24/2004, the subject European search report was identified as a search report that issued on November 17, 2003 for the related foreign counterpart and it was explained that this search report was being provided to comply with the “concise explanation” requirement of 37 CFR 1.98(a)(3)(i). (See cover letter accompanying IDS form). Thus, the search report was not submitted as prior art in and of itself, but rather, the search report provides the “concise explanation” required by 37 CFR 1.98(a)(3)(i). It is believed that any “withdrawal” of this concise explanation would be improper in light of its submission in compliance with 37 CFR 1.98(a)(3)(i). In the event that the Examiner believes otherwise and an issue remains, the undersigned welcomes a telephone call from the Examiner to resolve this issue.

35 USC § 102

- 5. Applicants are thanked for addressing this issue. Applicant's arguments are persuasive to negate 102(e) rejection; however, new rejection is anticipated in light of applicant's amendment.**

The undersigned respectfully submits that the present Office Action does not fully address the arguments presented in the prior Response despite the fact that (as explained more fully below) these arguments remain applicable to the grounds for rejection stated in the present Action. This is improper in light of the fact that the Examiner has presented many of the same arguments in the present Office Action. As required by MPEP 707.07(f), “Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant’s arguments and answer the substance of it.” MPEP 707.07(f).

In the applicant’s prior Response, the applicant did traverse many of the grounds for rejection now repeated in the present Office Action. However, in the current Office Action, the Office has failed to respond to many of the arguments previously presented despite the fact that the Office has repeated substantial portions of its grounds for rejection. As MPEP 707.07(f) requires, applicant is entitled to have the Office address the substance of the presented arguments. This is necessary so that the applicant can understand and reasonably respond to the Office’s continuing rejection of claims. However, in the present Action, and despite the fact that the Office has accepted that applicant’s arguments were persuasive to negate 102(e) rejections, the Examiner

has repeated many of the same arguments and incorrect characterizations of the prior art (though, in this case, in the context of a § 103 rejection); while the basis for rejection has changed (i.e., § 103 rather than § 102), the additional prior art cited in support of the § 103 rejections (i.e., Oliver) does not substantively affect the Examiner's improper characterizations of the prior art (i.e., those stated with respect to the Krishnamurthy reference) and, accordingly, many of applicant's previously-presented arguments remain pertinent and need to be addressed.

It is respectfully requested that the Examiner either withdraw rejections of the claims and allow the claims in light of the Applicant's arguments as repeated and/or more fully set forth below, or withdraw the present Office Action and issue a new Office Action fully addressing the substance of the arguments presented in the applicant's prior Response and herein as the Examiner is obligated to do under MPEP 707.07(f). A failure to do so leaves the applicant without a sufficient understanding as to why the previously presented arguments have not been accepted as distinguishing over the prior art.

Previously-presented arguments remaining pertinent to the present action are repeated below in courier font. The undersigned has also more clearly explained why the undersigned believes additional explanation by the Examiner is required.

8. Claims 1-13,17-25,28-36 were rejected under 35 U.S.C. 103 (a) as obvious by Krishnamurthy (U.S. Patent 6,256,038 (1998)) in view of Oliver (U.S. Patent 5,510,995 (1996)), herein referred to as Kris. Krishnamurthy teaches a method for creating a smooth parameterization and fitting it to an input surface in a 3-D computer graphics system comprising specifying a plurality of boundary curves on the surface that define a patch of the surface. The boundary curves are typically specified using a user-interactive curve editing procedure, but may also be specified automatically (abstract); but doesn't teach whether control points are unrestricted. Oliver teaches a technique for the synthesis of sculptured surface models (abstract) with the capability of unrestricting control points (Oliver: column 11, lines 45-49).

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Kris by way of Oliver to allow the designer to control the shape of the surface by imposing boundary conditions and external loads (Oliver: column 1, lines 60-62).

The Examiner's rejection is respectfully traversed. As further explained below, Krishnamurthy, alone or in combination with Oliver, does not disclose a method of manipulating control points as recited by the claims of the present application. Furthermore, contrary to settled law, in rejecting the present claims, what the examiner has done is to pick and choose phrases from Krishnamurthy and Oliver that bear only a superficial resemblance to the recited claim elements and for which the cited references fail to teach or suggest a combination as recited in the present claims. The Examiner has not shown that the cited references teach combining the elements of Krishnamurthy and Oliver to effect the invention claimed in the present application. It is well settled that it is the Examiner's burden to clearly establish a prima facie conclusion of obviousness. See, e.g., MPEP § 2142 which states:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 – § 2143.03 for decisions pertinent to each of these criteria.

The initial burden is on the examiner to provide some suggestion of doing what the inventor has done.

* * *

As further explained below, the Examiner has not met the forgoing requirements and has not shown that a combination of Krishnamurthy and Oliver would result in the operative invention recited by the claims of the present application, accordingly, a rejection under § 103 is improper.

Claim 1. A computerized method for manipulating a plurality of control points (Kris: column 51, lines 1-4)

The substance of the forgoing argument is repeated from the Examiner's prior office action. In response to the prior Office Action, the undersigned traversed the Examiner's argument and stated:

Although the Examiner, in his comments, asserts that col. 51, lines 1-4 teach "A computerized method for manipulating a plurality of control points" this is not the case. In fact, col. 51, lines 1-4 of Krishnamurthy does not teach any particular use of control points, but merely talks generally about "a computer implemented method for fitting a smooth surface to an input surface". The Examiner has provided no explanation as to how this relates to a "method of manipulating a plurality of control points" as recited by the claims of the present application. It is respectfully submitted that it is the Examiner's burden to show how what is cited relates to the language of the claims, and this has not been done.

It is respectfully submitted that the forgoing argument remains pertinent and it is respectfully requested that the Examiner withdraw the rejection and allow the claim or address the substance of this argument as the Examiner is required to do under MPEP § 707.07(f).

... the plurality of control points forming a plurality of rows along two non-parallel directions U and V, the method comprising (Kris: column 8, lines 26-34 and column 10, lines 49-51)

The substance of the forgoing argument is repeated from the Examiner's prior office action. In response to the prior Office Action, the undersigned traversed the Examiner's argument and stated:

The Examiner further cites to col.8, lines 26-34 of Krishnamurthy as relevant to the teaching of "the plurality of control points forming a plurality of rows along two non-parallel directions U and V, the method comprising". This assertion is respectfully traversed. The cited text is understood as merely disclosing that certain curves may be represented by points in 3-D space. However, the cited text does not teach that these points are control points that can be adjusted as recited in claim 1 (i.e., to provide a smooth transition of rows of points), nor does the cited text teach that these points are arranged in a plurality of rows along two non-parallel directions. Contrary to the Examiner's suggestion, the cited text appears to be irrelevant to the claim element requiring "the plurality of control points forming a plurality of rows along two non-parallel directions U and V". If the Examiner maintains the assertion that this material is relevant, the undersigned respectfully requests that the Examiner provide further explanation as to how the routine disclosure that points in 3D space can be used to represent a surface somehow teaches the different and much more specific use of "control points" as recited by claim 1. The undersigned respectfully submits that it does not.

Furthermore, with respect to the Examiner's cite to col. 10, lines 49-51 of Krishnamurthy as relevant to the teaching of "the plurality of control points forming a plurality of rows along two non-parallel directions U and V, the method comprising", it is respectfully submitted that although the cited text references a "(u,v)" this extract is taken out of context and does not disclose "the plurality of control points forming a plurality of rows along two non-parallel directions U and V" as recited by claim 1. Here, again, it is requested that if the Examiner maintains the assertion that the cited text of Krishnamurthy teaches or suggests the more specific and detailed element of claim 1, further explanation of, and objective evidence of, this teaching is requested.

It is respectfully submitted that the forgoing argument remains pertinent and, in light of the foregoing, it is respectfully requested that the Examiner withdraw his rejection and allow the claim or address the substance of this argument as the Examiner is required to do under MPEP § 707.07(f).

... adjusting the position of a control point in an intermediary row in the U direction to provide a smooth transition from the row of control points corresponding to a first edge along the U direction to a row of control points corresponding to a second edge along the U direction while retaining of control points in said first and second edges (Oliver: column 11, lines 45-49); adjusting the position of the control point in an intermediary row in the V direction to provide a smooth transition from the row of control points corresponding to a first edge along the V direction to a row of control points corresponding to a second edge along the V direction (Kris: column 18, lines 50-67 and column 19, lines 1-6) while retaining of control points in said first and second edges; and computing the new position of the control point based on the corresponding adjusted positions of the control point in the intermediary row in the U direction and the control points in the intermediary row in the V direction (Kris: column 21, lines 8-11 and lines 47-52).

The substance of the forgoing argument is repeated from the Examiner's prior office action with the addition of a cite to Oliver for the proposition of "adjusting the position of a control point in an intermediary row in the U direction to provide a smooth transition from the row of control points corresponding to a first edge along the U direction to a row of control points corresponding to a second edge along the U direction while retaining of control points in said first and second edges". In response to the prior Office Action, the undersigned traversed the Examiner's argument and stated:

The examiner cites to col. 18, lines 50-67 and col. 19, lines 1-6 of Krishnamurthy as providing the above-cited teaching. The undersigned respectfully submits that it does not. The cited text of Krishnamurthy is understood as teaching particular parameterization rules for the creation of iso-curves. This is not what is recited by the referenced claim element.

Furthermore, the cited text appears to teach away from what is recited in claim 1. For example, the cited text of Krishnamurthy teaches that the "spring mesh spacing along a particular iso-curve should be uniform" (col. 19, lines 1 and 2). The effect of this teaching is that, in accordance with Krishnamurthy's method, all the surface points are impacted by Krishnamurthy's surface fitting technique, even the located at the edges or boundary curves of a surface. This is contrary to what is claimed in the present application. According to claim 1 of the present application, adjustment occurs to the position of the control points located in an intermediary row only, the edges remaining unmodified. In contrast,

using what Krishnamurthy teaches and discloses, points from the edges of the surfaces in are modified (see, e.g., Krishnamurthy Figs. 3, 9).

It is respectfully submitted that the forgoing argument remains pertinent and it is respectfully requested that the Examiner address the substance of this argument as the Examiner is required to do under MPEP § 707.07(f). Furthermore, the undersigned respectfully submits that even in combination with the additional prior art reference Oliver, the above-repeated argument remains applicable particularly in light of Krishnamurthy's "teaching away" from the claimed invention. Accordingly, even to the extent that one could find such "taught away" arguments in Krishnamurthy, the combination of Krishnamurth and Oliver would not be suggested to one of ordinary skill in the art. See, MPEP § 2144.05 which states:

A prima facie case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from the claimed invention. In re Geisler, 116 F.3d 1465, 1471, 43 USPQ23 1362, 1366 (Fed. Cir. 1997)...

In this case, it is clear that Krishnamurthy's "teaching away" is a material one because, as explained above, Krishnamurthy contains a teaching contrary to what is recited in claims of the present application. In particular, Krishnamurthy teaches a method in which all of the surface points are impacted by the surface fitting technique, even those at the edges or boundary curves of a surface and this "teaches away" from the method claimed in the present application in which adjustment occurs to the position of the control points located in an intermediary row "while retaining positions of control points in said first and second edges."

In summary, it is respectfully submitted that Krishnamurthy, alone or in combination with Oliver, does not render claim 1 obvious under § 103 and, accordingly, claim 1 is patentable over Krishnamurthy and Oliver. It is respectfully requested that the Examiner withdraw his rejection of the claim.

Claims 2-13 and 16 depend, directly or indirectly, on claim 1 and are patentable for at least the reasons stated with respect to claim 1.

Claim 17. A computerized method for manipulating a plurality of control points, the plurality of control points forming a plurality of rows along two non-parallel directions U and V, the method comprising: (Kris: column 52, lines 1-3; column 29, lines 46-56 with figure 8; and column 33, lines 15-38); determining if a row of control points (Oliver: column 11, lines 45-49) corresponding to a first edge along the U direction in a first U plane; determining if a row of control points corresponding to a second edge along the U direction and the in a second U plane (Kris: column 33, lines 15-38); and adjusting the control points using the first U plane and the second U plane, wherein the adjustment only occurs if the row of control points corresponding to the first edge along the U direction belongs in the

first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane (Kris: column 33, lines 15-38).

The substance of the forgoing argument is repeated from the Examiner's prior office action with the addition of a cite to Oliver for the proposition of "determining if a row of control points". In response to the prior Office Action, the undersigned traversed the Examiner's argument and stated:

The Examiner, in his comments, asserts that col. 33, lines 15-38 of Krishnamurthy teaches "adjusting the control point using the first U plane and the second U plane, wherein the adjustment only occurs if the row of control points corresponding to the first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane" The undersigned has reviewed the cited text and it is respectfully submitted that this is not taught or suggested by the cited text. The cited text is understood as teaching the computation of intersections between curves in a u and a v direction. However, the cited text does not suggest what is claimed. For example, nowhere does the cited text teach or suggest adjusting control points using the first U plane and the second U plane, wherein the adjustment only occurs if the row of control points corresponding to the first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane.

For at least the reason that the cited text does not teaching adjusting control points wherein the adjustment only occurs if the row of control points corresponding to the first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane, claim 17 is patentable over the cited art. It is respectfully requested that the Examiner withdraw his rejection of the claim.

Claims 18-25 depend, directly or indirectly, on claim 17 and are patentable for at least the reasons cited with respect to claim 17.

It is respectfully submitted that the forgoing argument remains pertinent and it is respectfully requested that the Examiner withdraw the rejection and allow the claim or address the substance of this argument as the Examiner is required to do under MPEP § 707.07(f). Furthermore, the

undersigned respectfully submits that even in combination with the additional prior art reference Oliver, the above-repeated argument remains applicable. For example, even to the extent that Oliver does teach a “determining if a row of control points”, the Examiner’s cite to such a teaching is merely a picking-and-choosing of phrases superficially relating to the claim elements from underlying prior art references that are not directly related to what is recited by the claims and which are being arranged in combination with the aid of hindsight gained from the present application. Such an application of hindsight is clearly improper. See MPEP § 2141 Rev. 2, May 2004, page 2100-120, right column. While Court’s have recognized that obviousness rejections may include a degree of hindsight (see MPEP § 2145(X)), even in such cases, the Examiner must show that the knowledge to combine references “was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant’s disclosure.” (MPEP § 2145(X)). The Examiner has not met this burden and a rejection under § 103 is improper. It is respectfully requested that the Examiner withdraw the rejection and allow the claims.

Claim 28. A computerized method for manipulating a plurality of control points, the plurality of control points (Oliver: column 11, lines 45-49) forming a plurality of rows along two non-parallel directions U and V, the method comprising: determining if a row of control points corresponding to a first edge along the U direction and the first row belongs in a first U plane (Kris: column 52, lines 1-3; column 29, lines 46-56 with figure 8; and column 33, lines 15-38); determining if a row of control points corresponding to a second edge along the U direction and the first row belongs in a second U plane (Kris: column 33, lines 15-38); and constraining the control point using the first U plane and the second U plane, wherein the constraining only occurs if the row of control point corresponding to a first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane (Kris: column 33, lines 15-38).

The substance of the forgoing argument is repeated from the Examiner’s prior office action with the addition of a cite to Oliver for the proposition of “A computerized method for manipulating a plurality of control points, the plurality of control points”. In response to the prior Office Action, the undersigned traversed the Examiner’s argument and stated:

Claim 28 recites a method that includes adjusting control points and “constraining the control point using the first U plane and the second U plane, wherein the constraining only occurs if the row of control points corresponding to a first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane”.

It is respectfully submitted that Krishnamurthy fails to teach or suggest a method for manipulating control points where the control points are constrained if the row of control points corresponding to a first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane. For at least the foregoing reason, claim 28 is patentable over the cited art.

It is respectfully submitted that the forgoing argument remains pertinent and it is respectfully requested that the Examiner address the substance of this argument as the Examiner is required to do under MPEP § 707.07(f). Furthermore, the undersigned respectfully submits that even in combination with the additional prior art reference Oliver, the above-repeated argument remains applicable as the cited prior art combination does not show, among other things, the constraining of control points as recited by the claim (it is further noted that the Examiner, in rejecting other claims, has cited to Oliver's discussion of establishing boundary conditions (see, e.g., col. 1, l. 60-63), such a boundary condition is not understood as a constraining of control points as recited by the claim, but rather, is a more generally discussion of establishing boundary conditions; mere "boundary conditions" are not what is required by the claim's recited constraining of control points). Accordingly, a rejection under § 103 remains improper and it is respectfully requested that the Examiner withdraw the rejection.

Claims 29-36 depend, directly or indirectly, on claim 28 and are patentable for at least the reasons stated with respect to claim 28.

Claim 39. A computer system for manipulating a plurality of control points, the plurality of control points (Oliver: column 11, lines 45-49) forming a plurality of rows along two non-parallel directions U and V, the system comprising: a computer, wherein the computer comprises a memory and a processor (Kris: column 52, lines 1-3; column 29, lines 46-56 with figure 8; and column 33, lines 15-38); and executable software residing in the computer memory wherein the software is operative with the processor to: adjust the position of a control point in an intermediary row in the U direction to provide a smooth transition from the row of control points corresponding to a first edge along the U direction to a row of control points corresponding to a second edge along the U direction (Kris: column 33, lines 15-38) (Oliver: column 11, lines 45-49) while retaining positions of control points in said first and second edges; adjust the position of the control point in an intermediary row in the V direction to provide a smooth transition from the row of control points corresponding to a first edge along the V direction to a row of control points corresponding to a second edge along the V direction (Kris: column 9, lines 27-50 and column 33 lines 15-38) (Oliver: column 11, lines 45-49) while retaining positions of control points in said first and second edges; and compute the new position of the control point based on the corresponding adjusted positions of the control point in the intermediary row in the U direction and the control points in the intermediary row in the V direction (Kris: column 33, lines 15-33).

The substance of the forgoing argument is repeated from the Examiner's prior office action with the addition of a cite to Oliver for the proposition of "A computer system for manipulating a plurality of control points, the plurality of control points" and for "executable software residing in the computer memory wherein the software is operative with the processor to: adjust the position of a control point in an intermediary row in the U direction to provide a smooth transition from the row of control points corresponding to a first edge along the U direction to a row of control points corresponding to a second edge along the U direction (Kris: column 33, lines 15-38) (Oliver: column 11, lines 45-49)" and for "while retaining positions of control points in said first and second edges; adjust the position of the control point in an intermediary row in the V direction to provide a smooth transition from the row of control points corresponding to a first edge along the V direction to a row of control points corresponding to a second edge along the V direction (Kris: column 9, lines 27-50 and column 33 lines 15-38) (Oliver: column 11, lines 45-49)". In response to the prior Office Action, the undersigned traversed the Examiner's argument and stated:

Claim 39 is a system claim including system elements corresponding to those recited in claim 1. For at least the reasons stated with respect to claim 1, claim 39 is allowable over the prior art. It is noted that the Examiner, in rejecting claim 39, cites to Krishnamurthy at col. 9, lines 27-50 and column 33 lines 15-38 rather than col. 52 lines 1-3, column 29, lines 46-56 with Figure 8; and column 33, lines 15-38 and column 33, lines 15-38 (as the Examiner did when rejecting corresponding claim 1). It is respectfully submitted that, although the cited text has changed, the Examiner still has not shown that Krishnamurthy anticipates claim 1. For example:

- The cited text does not disclose or suggest that "control points" form a plurality of rows along two non-parallel directions U and V.
- The cited text does not disclose or suggest that control points are adjusted while retaining the positions of control points in first and second edges. As further discussed with respect to claim 1, Krishnamurthy teaches away from this because Krishnamurthy's technique would cause points along edges to be altered.

For at least the foregoing reasons, claim 39 is patentable over the cited prior art. It is respectfully requested that the Examiner's rejection of claim 39 be withdrawn and the claim allowed.

It is respectfully submitted that the forgoing argument remains pertinent and it is respectfully requested that the Examiner address the substance of this argument as the Examiner is required to do under MPEP § 707.07(f). Furthermore, the undersigned respectfully submits that even in combination with the additional prior art reference Oliver, (which is cited for the teaching of a plurality of control points) the above-repeated argument remains applicable as Krishnamurty, alone or in combination with Oliver, still fails to teach the particular use of control points as recited by the claims.

Claim 40. A computer data signal embodied in a digital data stream for manipulating a plurality of control points (Oliver: column 11, lines 45-49), the plurality of control points forming a plurality of rows along two non-parallel directions U and V, the signal comprising the steps of (Kris: column 1, lines 1- 26; column 52, lines 1-3; column 29, lines 46-56 with figure 8; and column 33, lines 15-38): adjusting the position of a control point in an intermediary row in the U direction to provide a smooth transition from the row of control points corresponding to a first edge along the U direction to a row of control points corresponding to a second edge along the U direction (Kris: column 9, lines 27-43; column 33, lines 15-38) while retaining of control points in said first and second edges (Oliver: column 11, lines 45-49) while retaining positions of control points in said first and second edges; adjusting the position of the control point in an intermediary row in the V direction (Oliver: column 11, lines 45-49) while retaining positions of control points in said first and second edges to provide a smooth transition from the row of control points corresponding to a first edge along the V direction to a row of control points corresponding to a second edge along the V direction while retaining of control points in said first and second edges; and computing the new position of the control point based on the corresponding adjusted positions of the control point in the intermediary row in the U direction and the control points in the intermediary row in the V direction (Kris: column 33, lines 15-38).

Claim 41. A computer system for manipulating a plurality of control points, (Oliver: column 11, lines 45-49) the plurality of control points forming a plurality of rows along two non-parallel directions U and V, the system comprising (Kris: column 1, lines 1- 26; column 29, lines 46-56 with figure 8; column 33, lines 15-38): a computer, wherein the computer comprises a memory and a processor; and executable software residing in the computer memory wherein the software is operative with the processor to: determine if a row of control points corresponding to a first edge along the U direction in a first U plane (Kris: column 1, lines 1-26; column 9, lines 27-43; column 44, lines 54-56; and column 51, lines 1-4) determine if a row of control points corresponding to a second edge along the U direction in a second U plane; and adjust the control point using the first U plane and the second U plane, wherein the adjustment only occurs if the row of control points corresponding to the first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane (Kris: column 33, lines 15-38).

The substance of the Examiner's argument with respect to claim 40 is repeated from the Examiner's prior office action with the addition of a cite to Oliver for the proposition of "A computer data signal embodied in a digital data stream for manipulating a plurality of control points" and for "while retaining of control points in said first and second edges (Oliver: column 11, lines 45-49) while retaining positions of control points in said first and second edges;

adjusting the position of the control point in an intermediary row in the V direction (Oliver: column 11, lines 45-49)”. In response to the prior Office Action, the undersigned traversed the Examiner’s argument and stated:

The substance of the Examiner’s argument with respect to claim 41 is repeated from the Examiner’s prior office action with the addition of a cite to Oliver for the proposition of “A computer system for manipulating a plurality of control points,” and for “while retaining of control points in said first and second edges (Oliver: column 11, lines 45-49) while retaining positions of control points in said first and second edges; adjusting the position of the control point in an intermediary row in the V direction (Oliver: column 11, lines 45-49)”. In response to the prior Office Action, the undersigned traversed the Examiner’s argument and stated:

Claims 40 and 41 are independent claims that, contrary to the Examiner’s suggestion, are not anticipated by Krishnamurthy. For example, as explained with respect to claims 1 and 39, Krishnamurthy, does not teach or suggest a method of manipulating control points in which control points are adjusted while control point positions along edges are retained (i.e., left unchanged). Because Krishnamurthy’s method does not retain the positioning of points along edges, while the claimed invention does, it is respectfully requested that Krishnamurthy cannot be said to anticipate a method that does. For at least the foregoing reason, it is respectfully requested that the Examiner withdraw his rejection of claims 40 and 41 and allow the claims.

It is respectfully submitted that the forgoing argument remains pertinent even in light of the Examiner’s combination with Oliver. Generally speaking, Oliver has been cited for its teaching of a plurality of control points. However, the claim requires much more and, as previously addressed, contrary to the Examiner’s suggestion, Krishnamurthy does not teach numerous ones of the elements recited by the claim. It is respectfully requested that the Examiner withdraw the rejection and allow the claim or address the substance of the applicant’s arguments as the Examiner is required to do under MPEP § 707.07(f).

Claim 42. A computer data signal embodied in a digital data stream for manipulating a plurality of control points (Oliver: column 11, lines 45-49), the plurality of control points forming a plurality of rows along two non-parallel directions U and V, the signal comprising the steps of: (Kris: column 1, lines 1- 26; column 29, lines 46-56 with figure 8; column 33, lines 15-38; and column 44, lines 54-67); determining if a row of control points corresponding to a first edge along the U direction in a first U plane; determining if a row of control points corresponding to a second edge along the U direction belongs in a second U plane (Kris: column 33, lines 15-38); and adjusting the control point using the first U plane and the second U plane, wherein the adjustment only occurs if the row of control points corresponding to the first edge along the U direction belongs in the first U plane and the row

of control points corresponding to the second edge along the U direction belongs in the second U plane (Kris: column 9, lines 27-50; and column 33, lines 15-38).

The substance of the forgoing argument is repeated from the Examiner's prior office action with the addition of a cite to Oliver for the proposition of "A computer data signal embodied in a digital data stream for manipulating a plurality of control points (Oliver: column 11, lines 45-49)". In response to the prior Office Action, the undersigned traversed the Examiner's argument and stated:

Claim 42 is a signal claim corresponding to method claim 17. As explained with respect to claim 17, claim 42 is patentable over Krishnamurthy for at least the reason that Krishnamurthy fails to teach or suggests adjusting control points using the first U plane and the second U plane, wherein the adjustment only occurs if the row of control points corresponding to the first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane.

It is noted that, in asserting that Krishnamurthy discloses the recited adjusting "only ... if", element of claim 42, the examiner cites to col. 9, lines 27-50 of Krishnamurthy in addition to column 33, lines 15-38 (in rejecting the corresponding element of claim 17, the Examiner cited to col. 33, lines 15-38 but not to col. 9, lines 27-50). The undersigned has reviewed the newly cited section (i.e., col. 9, lines 27-50), and it appears that this section of Krishnamurthy, like col. 33, lines 15-38, also fails to teach or suggest adjusting control points using the first U plane and the second U plane, wherein the adjustment only occurs if the row of control points corresponding to the first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane.

For at least the reason that Krishnamurthy fails to teach or suggest adjusting control points using the first U plane and the second U plane, wherein the adjustment only occurs if the row of control points corresponding to the first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane, claim 42 is patentable over

Krishnamurthy. It is respectfully requested that the Examiner withdraw his rejection.

It is respectfully submitted that the forgoing argument remains pertinent and it is respectfully requested that the Examiner withdraw the rejection and allow the claim or address the substance of this argument as the Examiner is required to do under MPEP § 707.07(f). Furthermore, the undersigned respectfully submits that even in combination with the additional prior art reference Oliver, the above-repeated argument remains applicable. For example, nowhere does the cited prior art teach or suggest an adjustment of control points wherein the adjustment only occurs if the row of control points corresponding to the first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane as recited by the claims.

Claim 43. A computer system for manipulating a plurality of control points (Oliver: column 11, lines 45-49), the plurality of control points forming a plurality of rows along two non-parallel directions U and V, the system comprising: a computer, wherein the computer comprises a memory and a processor (Kris: column 1, lines 1- 26; column 29, lines 46-56 with figure 8; column 33, lines 15-38; and column 44, lines 54-67); and executable software residing in the computer memory wherein the software is operative with the processor to: determine if a row of control points corresponding to a first edge along the U direction belongs in a first U plane (Kris: column 33, lines 15-38); determine if a row of control points corresponding to a second edge along the U direction belongs in a second U plane (Kris: column 33, lines 15-38); and the control point using the first U plane and the second U plane, wherein the constrain only occurs if the row of control points corresponding to a first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane (Kris: column 9, lines 27-50; and column 33, lines 15-38).

Claim 44. A computer data signal embodied in a digital data stream for manipulating a plurality of control points (Oliver: column 11, lines 45-49), the plurality of control points forming a plurality of rows along two non-parallel directions U and V, the signal comprising (Kris: column 1, lines 1- 26; column 29, lines 46-56 with figure 8; column 33, lines 15-38; and column 44, lines 54-67 the steps of:): determining if a row of control points corresponding to a first edge along the U direction and the first row belongs in a first U plane (Kris: column 33, lines 15-38); determining if a row of control points corresponding to a second edge along the U direction and the first row belongs in a second U plane (Kris: column 33, lines 15-38); and constraining the control point using the first U plane and the second U plane, wherein the constraining only occurs if the row of control points corresponding to a first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane (Kris: column 33, lines 15-38).

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System claim 43 and signal claim 44 each include limitations corresponding to those method claim 28. Claims 43 and 44, like claim 28, each recites "constraining" control points "wherein the constraining only occurs if the row of control points corresponding to a first edge along the U direction belongs in the first U plane and the row of control points corresponding to the second edge along the U direction belongs in the second U plane." As explained further with respect to claim 28, Krishnamurthy fails to teach or suggest constraining the positions of control points in accordance with the claimed conditions. For at least this reason, claims 43 and 44 are patentable over the cited art. It is respectfully requested that the Examiner withdraw his rejection and allow the claims.

It is respectfully submitted that the forgoing argument remains pertinent and it is respectfully requested that the Examiner withdraw the rejection and allow the claim or address the substance of this argument as the Examiner is required to do under MPEP § 707.07(f). Furthermore, the undersigned respectfully submits that even in combination with the additional prior art reference Oliver, the above-repeated argument remains applicable as neither Krishnamurthy or Oliver, alone or together, teach all elements recited by the claim..

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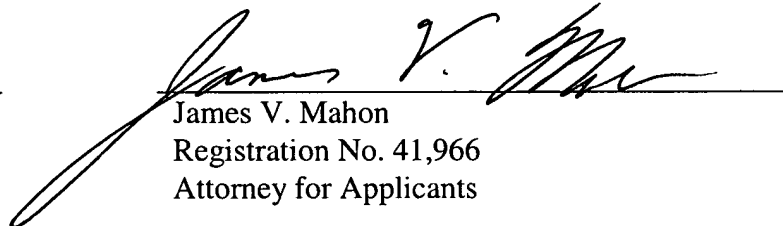
Conclusion

Claims 1-13, 16-25, 28-36, 39-44 are now pending and believed to be in condition for allowance. Applicants respectfully request that all pending claims be allowed.

Please apply any credits or excess charges to our deposit account number 50-0521.

Respectfully submitted,

Date: October 11, 2005


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